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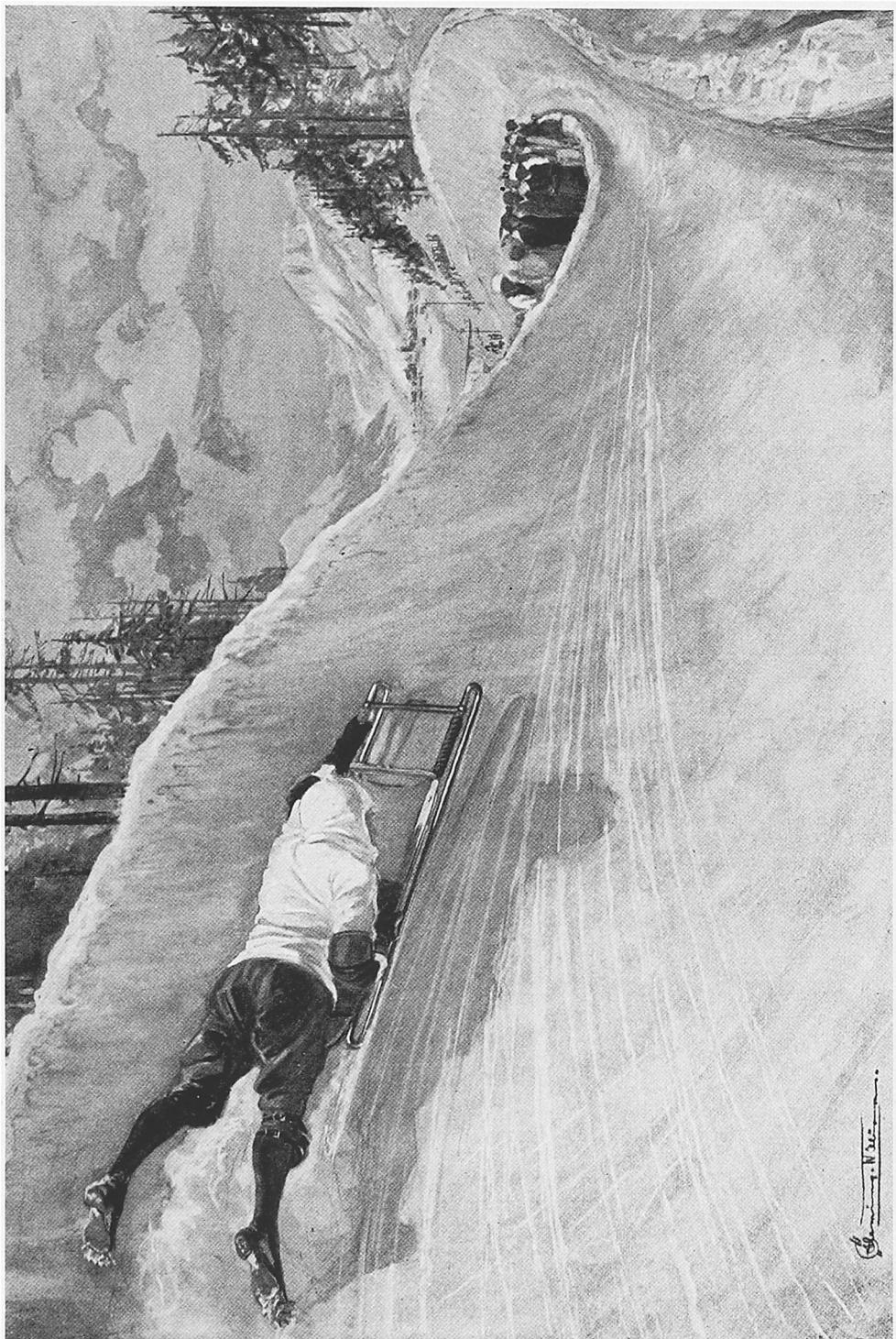
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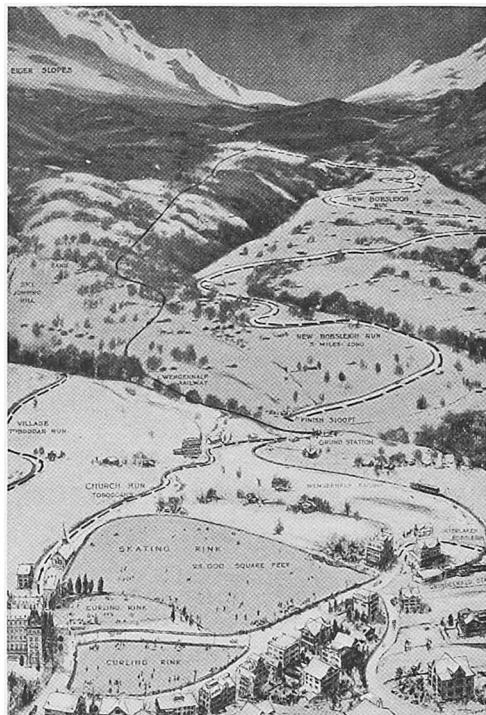
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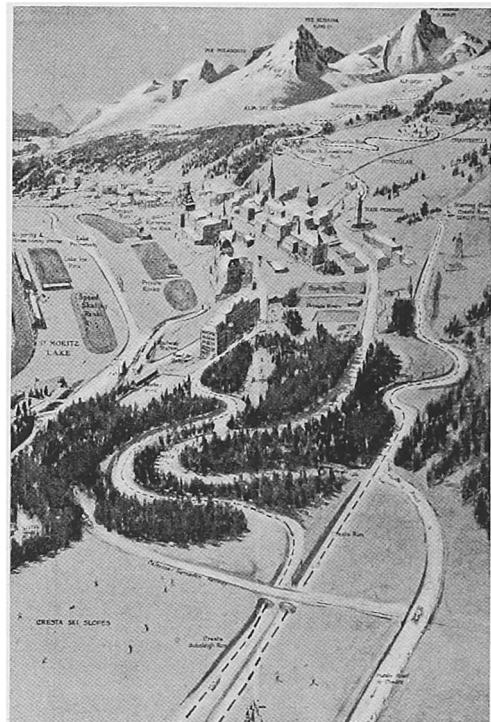


On the Cresta Run

## TOBOGGANING ON THE CRESTA RUN, ST. MORITZ



Grindelwald



St. Moritz

HERE is one Mecca: there is one St. Peter's: there is one Cresta. As is Mecca to the Mohammedan, as is St. Peter's to the Catholic, so is the Cresta run at St. Moritz to the tobogganer. It is *the* ice-run. There may be others, and there certainly are, but what does the Cresta care? It has a *cachet* which no other possesses.

With these words E. F. Benson begins a section of a chapter on tobogganing in a most clever book devoted to "Winter Sports in Switzerland" and published in England. The rest of the chapter and, further on, a description of ski-jumping are most lively and entertaining. Messrs. Dodd, Mead & Co.

are agents for Mr. Benson's sprightly writings on these subjects here.

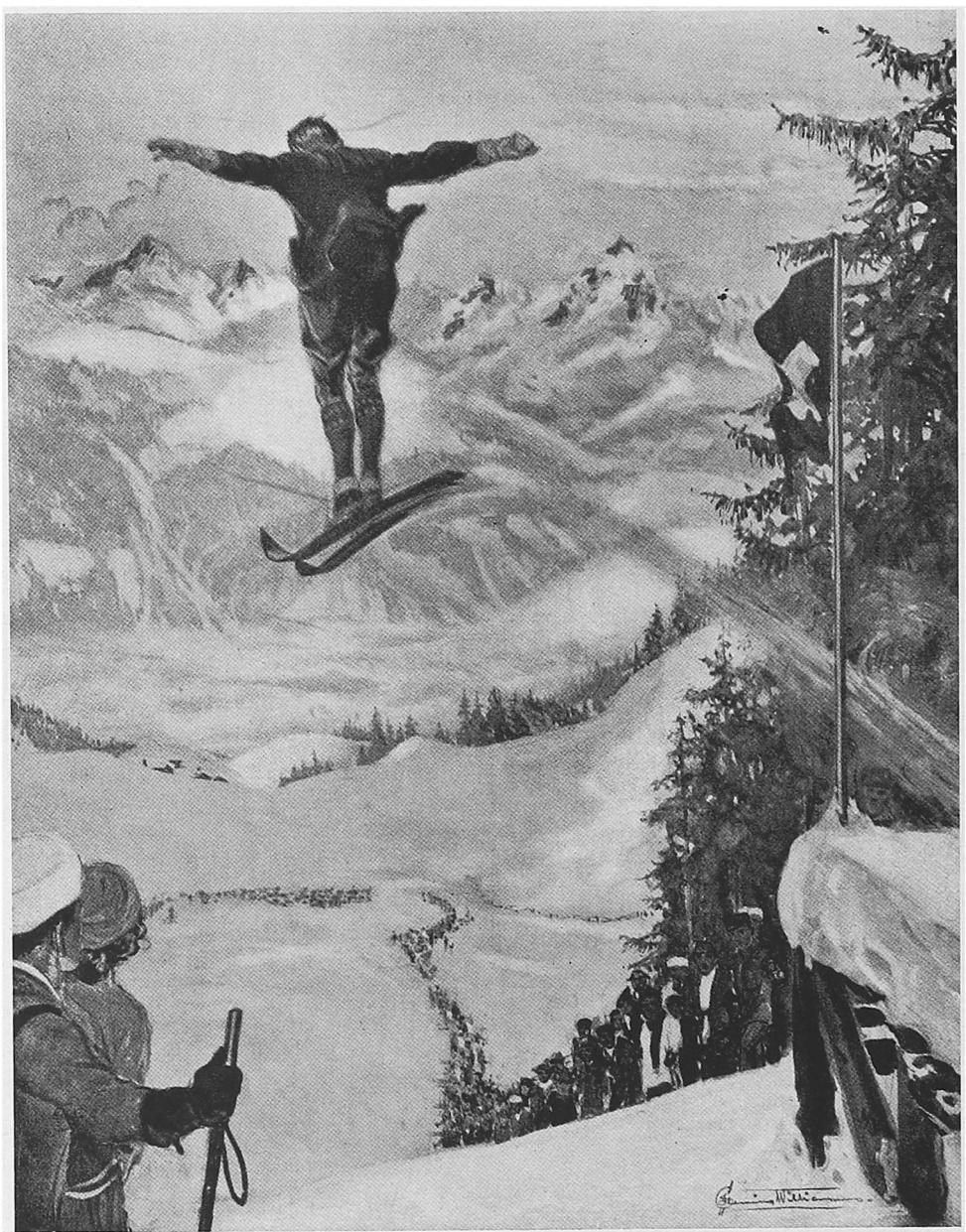
The Cresta was first engineered, I believe, in the year 1884, and its chief architect was Herr Peter Badruth of St. Moritz. From that time onwards it has yearly been built up with as much thought and care as is lavished on a Cathedral; every yard of it is staked out, and the angles, curves, and shaping of its banks and corners most accurately calculated. It is built up from the bottom upwards, so that the lower part of it can be used while the construction of the upper part is still going on, and the whole run is generally open not until after the middle of

February. Every winter is this amazing architecture in crystal planned and carried out under the direction of Mr. W. H. Bulpett, who has for many years been chief architect.

To begin with, the snow is trampled down, after the manner of making the foundation of an ice-rink, so as to form a firm solid base, and where the banks are to be built snow is brought in sleigh-loads, shovelled on to it, and beaten down. More snow will then be still required, and again more, till the whole of the banks are solid and of the necessary height and curve. Then the banks and the rest of the course (the straights) are sprinkled with water and again beaten down, and the glazed ice surface begins to be made. When this has frozen, water is again sprinkled on it, and again and yet again, till the whole section has become, banks and course alike, a surface of smooth hard ice. Down each side of the narrow racing track (except at its banked corner it is only a few feet wide, a riband of ice) are little walls of firm built snow, also iced, so that the runner, if he is going moderately straight, cannot leave the track, though he often comes into slight collision with these walls. But even slight collisions when travelling at a speed that sometimes exceeds 70 miles an hour are not experiences to be encountered unarmed, and the elbows and knees are thickly protected by felt pads, while on the toes of his boots are toothed rakes made of steel, which are used to guide the runner round the bank and to check his speed if it is so excessive that, unchecked, he would run over the tops of the banks.

A very high degree of nerve, skill,

and judgment is required on such an ice-run as this. The rider's object being to cover the course in as few seconds as possible, he must clearly take his banks (*i.e.* get round the curves) with as little loss of speed as possible, and he will only use his brakes when his judgment tells him that if unchecked he would be carried over the top of them. On the other hand, he does not want to brake unless it be necessary, and you will often see him with his top runners within an inch or two of the edge of these huge sloping ice-curves. At Battledore and Shuttlecock, the two biggest banks on the Cresta, he enters the second immediately after coming out of the first, and the two form a great S curve. Lower down again, before he threads the arch of the railway bridge, there is another called Bulpett's corner, designed to protect him from running out to the left of the course, and then a headlong descent takes him to the winning-post, which is at the bottom of the hill. Passing this he snaps a thread with an electric connection, which registers the exact fraction of a second at which he passes it. Then, on his run out, he whirls up a steep ice-covered slope, for if this were not iced too, his speed would be so abruptly checked that he and his toboggan would be bowled over and over like a shot rabbit, and comes to a stop just outside the little village of Cresta. But even with this steep slope to check him after his race is over, the momentum acquired is so great that, if he does not break heavily all the way up this hill, he will, on reaching the level ground at the top, shoot high into the air, toboggan and all.



The Jump

Some idea of the speed at which toboggans travel on the straight reaches of the course may be gathered from the average speed at which the course can be run. It is over 1300 yards in length, and has been traversed in a shade over 60 seconds! This means that the highest rate of speed must be well over 70 miles an hour. This on a pair of steel runners, head foremost, with your face

a few inches above the solid ice, with nothing to check you except a small-toothed rake on the toe of each boot! Yet so wonderfully skilful is the construction of the run, so cunningly is it built to safeguard the headlong traveller, that accidents are very few. Two fatal ones, indeed, there have been, but of these one had nothing to do with the course itself, but was owing to the fact that a rider started from the

top before one of the barriers across the course, which show that it is not open for racing, had been removed. In the other, the rider ran over a bank and his toboggan fell on the top of him.

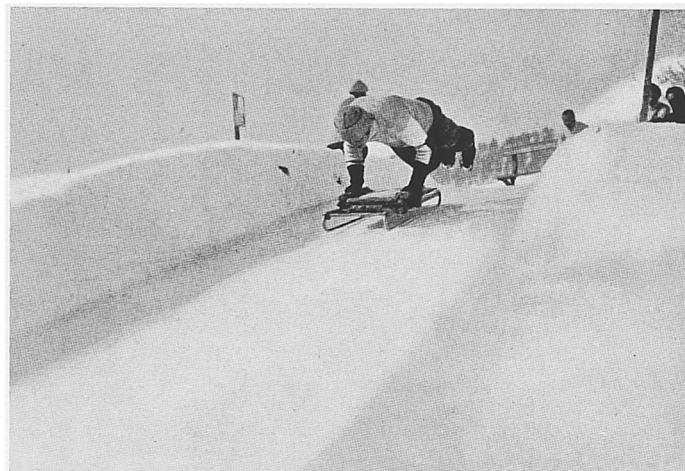
One of the great difficulties which the builders and managers of this run, in company with other ice-runs, have to contend against, is the power of the sun. It is, of course, absolutely necessary that the icing of the run should be so solid that there is no chance of the runner of a toboggan going through it, which would naturally mean a bad spill. But it is also neces-

sary that certain of the banks must have the sun blazing into them all day long, which would cause them to lose ice faster than it could be made by the sprinkling which goes on when the sun is off them. At such points, therefore, big canvas screens are put up, which shade the bank from the direct rays; also tobogganing is never permitted to go on all day. It starts early in the morning, when the run has been recu-

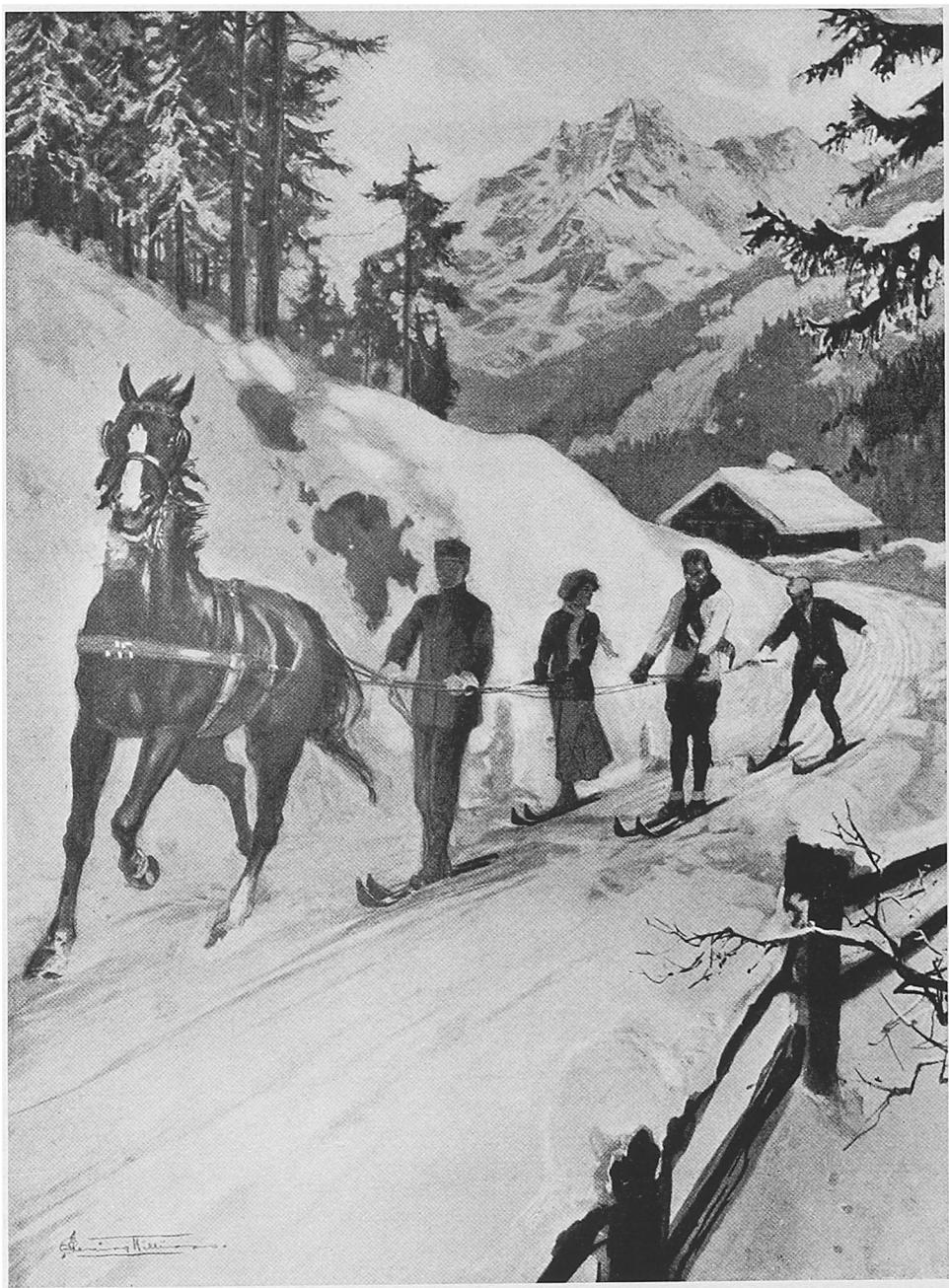
perated by the night of frost, and is closed when, in the opinion of the management, the sun has so softened the banks that there is danger of a toboggan cutting through the crust.



The Top of the Cresta, St. Moritz



Starting on the Cresta



Ski-Joring

## BOBSLEIGHING (OR BOBBING)

This charming form of the sport may be described as combined tobogganing, and in bobbing races teams of four enter against each other. The form of toboggan used is, of course, immensely larger than that employed in single tobogganing, since it will hold five or six persons, and its construction is altogether different and most elaborate. It consists of a long, low platform some 10 feet in length, and is mounted, not on one pair of runners, but on two. The pair that supports the fore part of the bobsleigh is a sort of bogie-truck, pivoted under the platform, and it can be turned to the right and left in order to direct the course of the bob round curves. This turning of it is done by the captain, who sits first at the bows of the sleigh, and is worked by ropes, which he holds in his hands, or by a wheel which controls its movements. In long runs, as on the Schatzalp at Davos, the wheel is far better

than the ropes, since it entails so much less strain on the hands of the steersman: on a short run the ropes are as good. Behind the captain sit the members of his crew in line, with the loops of rope just outside the framework of the sleigh, in which they fix their heels. Last of them all sits the brakesman, at the stern of the sleigh, who has in his control a powerful steel-toothed brake, which crosses the sleigh behind and is worked with levers. But it is the captain who is in command of the bob, and the brakesman and other members of the crew only perform his orders.

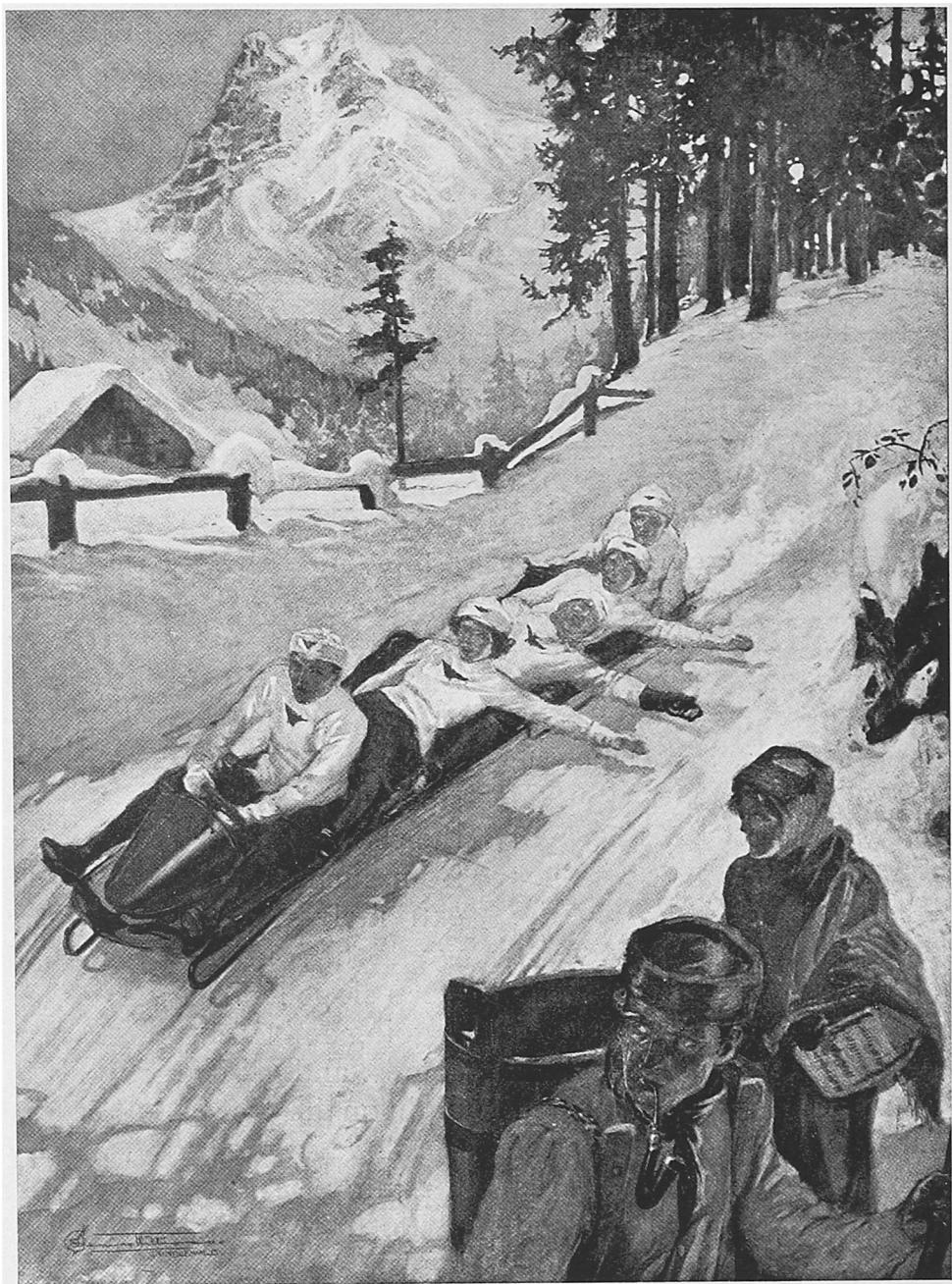
And the responsibility is entirely in his hands. At the same time much depends on the prompt obedience of the crew to his orders, for it is easily possible that a corner might have been safely coasted round if they had obeyed his call to lean inward, which would spill them all if his call was not immediately responded to.



Church Leap, Cresta Run



Crossing the road, Cresta



“Achtung!”

## SKI-JUMPING IN SWITZERLAND

Of all spectacular feats compassable upon frozen snow surfaces, ski-jumping is, to the minds of most people, the most amazing, and compared with it all performances on ice-rinks and toboggan-runs seem to the spectator almost tame. Not having the smallest or most elementary practical experience of it (I should freeze with terror if told that I had to go over even a very mild ski-jump, and probably be found hiding in the station waiting-room to take the next train home), I can but give an impression of it as it strikes the observer.

The glad word is passed round the hotel one evening that some famous ski-jumper has arrived and will give an exhibition next day; and next day, accordingly, you trudge out on to the slope where the jump has been erected. This is a long steep hillside, and the platform for the jump has been put up some hundred yards from the top of it. It is a champion jumper who has arrived, and the apparatus is on the big scale. Out from the slope of the hill is this platform, built in the manner of a dormer window in a house-roof or a header-board above a pool. It is made of wooden planks supported on posts, and covered with a layer of down-trodden snow. It is some 5 yards or so in length, 5 or 6 feet broad, and the edge of it is some 6 feet perpendicularly above the slope at its base. At the corners of it, to guide the jumper who approaches it, are boughs of fir stuck into the snow, or flags. Above it the slope is of moderate steepness, sufficient, anyhow, for a skier to get up a considerable speed when running

straight down towards it from above; below the hillside is considerably steeper, and continues at a steep angle for two or three hundred yards. Both above and below the platform the snow is being industriously trodden down by those engaged on the preparations, so as to make a smooth firm run for the jumper before he gets to his platform, and a smooth firm landing-place after his flight through the air. The reason of this is that it is absolutely essential that the jumper should have no check when he touches ground again after his flight: if he landed in soft or deep snow he would quite certainly have a bad fall. But with hard smooth snow to land on there is no such check, and on landing he continues his course at high speed straight down the hill. It is also extremely important for him to land on a steep slope; for if the slope was but gentle, the shock of coming in contact with it from such a height would clearly be extremely severe, and broken bones would undoubtedly result. But the steep slope lends itself to the pace he is going and the height from which he comes, and, as it were, continues his flight on the ground. Also, the steeper the slope is, the longer obviously will the jump be, as measured from the platform to the point where he first lands.

A good place to see the jumping from is to the side of the track down which the jumper will come and a little way below the platform: here let us suppose ourselves standing. On each side of the course stretch out lines of spectators, and a hundred yards above the

jumper is standing talking to friends and seeming positively to enjoy what lies in front of him. Then the word is given, and steadying himself on his two sticks he points his skis straight down towards the jump. He shoves off with his sticks, leaving them standing in the snow (for no jumper uses sticks when he jumps, which would be highly dangerous), and at swiftly accelerating speed glides down the slope. As he approaches the jumping-platform he crouches low, and just as he traverses it he springs upwards and forwards into the air. High above your head, a veritable flying man, he soars, with all the impetus that his run and his spring have given him. For a hundred feet or more he continues this amazing flight in a superb curve, and you wait breathless, scarcely able to believe that when he touches the ground again at that pace and from that height there will be anything but a heap of broken bones there. But he alights without shock or the least appearance of unsteadiness, and simul-

taneously, it appears, he is already another hundred feet down the slope, going like an arrow. Then comes perhaps the most astounding feat of all: he suddenly kneels, and in a moment has swung round with a Telemark, and has come to rest, facing up the hillside over which he had flown and skimmed. And then this extraordinary young man (he is usually rather young) will climb his slope again and instantly repeat the process, in evident enjoyment, or, more remarkable yet, he will get hold of another like himself, and they will take their jump hand-in-hand, let go of each other on landing, and Telemark, one to the right the other to the left!

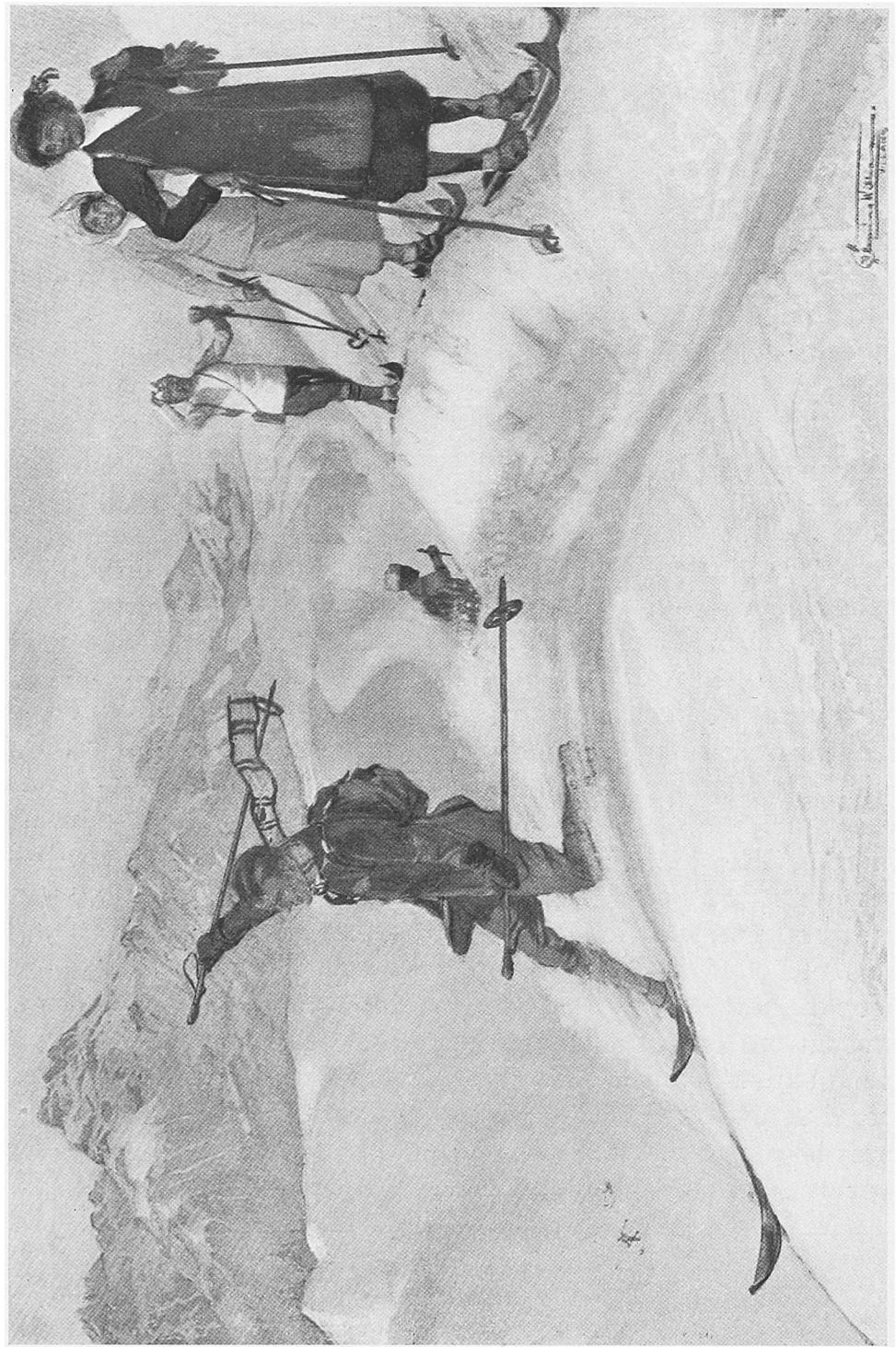
This jumping is certainly skiing *in excelsis*, and jumpers tell us that if the beginners starts with small jumps, and is careful to do everything correctly and in the proper style from the beginning, he will not find it either a difficult or dangerous pursuit. But he must be careful to make his movements (his crouch, his spring, his angle



Near the Finish on the Cresta



Bob-Run, St. Moritz



The Telemark Turn

in the air, the levelness of his skis as he alights, etc.) with accuracy and correct timing; while it is not less important that the jump itself should be properly constructed and the slopes that lead to and from it be of suitable steepness. Indeed, what appears to the ignorant onlooker the most hazardous part of the whole affair, namely, the landing on a very steep slope, is safe only if the slope is steep, and the real obstacle that lies in the way of most men taking up jumping as a sport, is not that it is dangerous so much as that their nerves tell them that it must be, and refuse to make the crouch and spring (the *säts*, as the Norwegians call it) with vigour and confidence, even if they can master their nerves so far as to let themselves run down on to the platform at all. But having once reached the platform, the spring must be made: otherwise the would-be jumper will merely flow stickily, so to speak, over the edge, bury the toes of his skis in the snow, and certainly have a bad fall. But, indeed, the nerves must be in good condition, for the platform, approaching it from above, looks exactly like a cliff's edge, and jutting out as it does from the slope, it entirely conceals the slope below it: your eyes tell you that you are merely leaping over the end of all things. But if, after considering the

question, you decide, as most people do, that you will not begin jumping this season, you have only to repeat that prudent resolution for a few more seasons, and then you will be able to tell yourself and everybody else that it is no use trying to learn to jump unless you begin it quite as a boy. This does not really happen to be the case; but it is one of those excuses that are always granted acceptance, and, having firmly established it in your own mind, your nipped ambition will cease to worry you any more.

#### DELIGHT OF SKI-JORING

A further delightful pastime to be indulged in on skis is that known as ski-joring. For this it is necessary to secure co-operation of a horse, and fit him with long reins or ropes, which you hold one in each hand, and stand behind the horse out of the way of his heels. He is lightly harnessed, and from his collar passes a long leather loop of rein, which passes round the ski-jorer's body. You then encourage your horse to proceed, and if he is good enough to do so, he will naturally pull you along on your skis by this loop of rein from his collar. It is a fascinating pursuit to watch, and can be practised over a frozen lake or along the down-trodden snow of roads.